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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/803,708	03/09/2001	Zai-Ming Qiu	56469USA6A.002	6332
32692	7590	11/25/2003	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			ANTHONY. JOSEPH DAVID	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 11/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/803,708	QIU, ZAI-MING	
	Examiner	Art Unit	
	Joseph D. Anthony	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 21-25, 29 and 30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 26-28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-5 and 9-20 and 26-28 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for fluorochemical ester compositions that have a structure of formula (I), does not reasonably provide enablement for fluorochemical esters that have a formula outside of formula (I). The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. It must be pointed out that applicant's claims are directed to a fluorochemical ester composition and not to a method of making the fluorochemical ester composition even though claim 1 is written as a product-by-process type claim. There are literally thousands of different ways applicant's claimed components (a), (b) and (c) can react during a condensation type reaction. Applicant's disclosure does not show by examples most of these possible combinations, but does clearly enable the condensation reaction product of Formula (I).

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-20 and 26-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claim 1 is indefinite because there is no antecedent basis for the phrase "said compounds" as set forth in line 4 of the claim. Claim 1 is also indefinite in regards to what the basic structure of the condensation reaction is since none is listed but the condensation product is claimed nevertheless.

Claim 6 is indefinite in regards to the phrase: "with all perfluorocarbon chains present having 1 to 6 , preferably 1 to 4 carbon atoms" as set forth in lines 8-9 of the claim. What "chains" are applicant referring to since there is no antecedent basis for the term "chains"?

Claim 7 is indefinite because the table is deemed to be inappropriate for insertion into the claim. The subject matter in the claim should be rewritten as a Markush group.

Claim 8 is indefinite in regards to the phrase: "with all perfluorocarbon chains present having 1 to 6 , preferably 1 to 4 carbon atoms" as set forth in lines 7-8 of the claim. What "chains" are applicant referring to since there is no antecedent basis for the term "chains"?

Claims 2-5, and 7-20 and 26-28 are rejected because they are dependent on a base claim that has been rejected.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-20 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jariwala et al. U.S. Patent Number 6,586,522 or Jariwala et al. U.S. Patent Number 6,174,964 or Jasriwala et al. U.S. Patent Number 6,288,157 or Klun et al. U.S. Patent Number 6,127,485 or Kang et al. U.S. Patent Number 6,238,798.

All the above patents are deemed to individually disclose water- and oil- repellent compositions of the fluorochemical ester oligomer type. The said fluorochemical esters oligomers are disclosed to be condensation reaction products of reactants such as 1) fluorinated polyols, 2) polyacryl compounds, and 3) monofunctional fluorine containing compounds. The above patents may differ from applicant's claimed invention in that it is unclear from the examples if any of the condensation reaction product has applicant's claimed limitation of where one or more oligomers comprises: "(i) at least one fluorine containing repeatable unit".

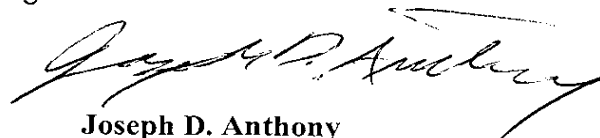
It would have been obvious to one having ordinary skill in the art to make a fluorochemical ester that actually comprises "at least one fluorine containing repeatable unit", since if components 1), and 2) and 3) are all condensed together as suggested by the individual patents the reaction product would have applicant's said claimed limitation.

Prior-Art Cited But Not Applied

7. Any prior-art reference which is cited on FORM PTO-892 but not applied, is cited only to show the general state of the prior-art at the time of applicant's invention.

Examiner Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Joseph D. Anthony whose telephone number is (703) 308-0446 until 12/04/03; after 12/04/03 my new telephone number will be (571) 272-1117. This examiner can normally be reached on Monday through Thursday from 7:35 a.m. to 6:00 p.m. in the eastern time zone. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (703) 306-2777. The centralized FAX machine number is (703) 872-9306. All other papers received by FAX will be treated as Official communications and cannot be immediately handled by the Examiner. Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is (703) 308-0651. The receptionist is located on the 8th floor of Crystal Plaza 3 (e.g. CP-3) and will be the welcome point for all visitors to the building.



Joseph D. Anthony
Primary Patent Examiner
Art Unit 1714

11/17/03